

IN THE CLAIMS

1. (Currently Amended) A Stator assembly for use with a multi-phase inner rotor motor, comprising:

a circular stator yoke having an inner periphery, a total axial length and a number of pole shoes extending radially inward from the inner periphery of the stator yoke; ~~wherein~~

the stator yoke ~~includes~~ including a plurality of stator sections, ~~with each stator section encompassing all the pole shoes of one phase and each section axially extending to define a portion of the total axial length of the stator.~~

2. (Previously Presented) The Stator assembly according to claim 1, wherein each of the plurality of stator sections defines a part of the stator yoke.

3. (Previously Presented) The Stator assembly according to claim 1, wherein the pole shoes of each stator section extend along substantially an axial length of the stator yoke.

4-7. (Cancelled.)

8. (Previously Presented) The Stator assembly according to claim 1, wherein the stator sections are interleaved with each other.

9. (Currently Amended) An electric motor ~~including~~ comprising:

a stator assembly for an inner rotor motor comprising a ring-shaped stator yoke and a number of pole shoes which protrude inwards from the stator yoke,

wherein the stator component includes ~~several~~ a plurality of stator sections, ~~which~~ each stator section encompassing all the pole shoes of one phase and each stator section extending in an axial direction to define a portion of a total axial length of the stator yoke.

10. (Cancelled.)

11. (Withdrawn) The method according to claim 20, wherein the first component and said second component are united by packaging or bonding.

12-13. (Cancelled.)

14. (Previously Presented) The Stator assembly according to claim 1, wherein the stator assembly is concentric with an axis of the rotor.

15. (Currently Amended) The Stator assembly according to ~~claim 1~~ claim 1, wherein an axial length for each stator section is substantially equal to the total axial length of the stator yoke divided by the number of phases of the motor.

16. (Previously Presented) The Stator assembly according to claim 1, wherein each stator section is adapted to receive the pole shoes corresponding to all phases of the multi-phase motor.

17. (Previously Presented) The Stator assembly according to claim 1, wherein the pole shoes are adherently bonded to the stator section.

18. (Previously Presented) The Stator assembly according to claim 1, wherein the each stator section is bonded to at least one other stator section.

19. (Previously Presented) The Stator assembly according to claim 1, wherein the pole shoes of each stator section are offset at an angle with respect to each other.

20. (Withdrawn) A method for manufacturing a stator for use in a multi-phase electric motor, comprising:

providing a first component having a circular first yoke and a plurality of first pole shoes extending radially inward from the first yoke, the first pole shoes corresponding to a first phase of the multi-phase electric motor and extending axially beyond the first yoke to a length of $N \times (N-1) \times (L)$;

providing a second component having a circular second yoke and a plurality of second pole shoes extending radially inward from the second yoke, the second pole shoes corresponding to a second phase of the multi-phase electric motor; and

axially assembling the first and the second components to form a stator assembly;
wherein each of the primary pole shoes is radially offset against both the other

primary pole shoes and the secondary pole shoes; and wherein N is the number of phases of the multi-phase motor and L is a total length of the stator once assembled.

21. (Withdrawn) The method of claim ~~19~~20, further comprising providing additional component to correspond to each phase of the multi-phase motor.

22. (Withdrawn) The method of claim ~~19~~20, further comprising wire-winding each pole shoe prior to the step for axially assembling the first and the second components.

23. (New) A Stator assembly for use with a multi-phase inner rotor motor, comprising:

a circular stator yoke having an inner periphery and a number of pole shoes extending radially inward from the inner periphery of the stator yoke,

the stator yoke including a plurality of stator sections, each stator section encompassing all the pole shoes of one phase;

wherein an axial length for each stator section is substantially equal to the total axial length of the stator yoke divided by the number of phases of the motor.

24. (New) A Stator assembly for use with a multi-phase inner rotor motor, comprising:

a circular stator yoke having an inner periphery and a number of pole shoes extending radially inward from the inner periphery of the stator yoke,

the stator yoke including a plurality of stator sections, with each stator section encompassing all the pole shoes of one phase;

wherein each stator section is adapted to receive the pole shoes corresponding to all phases of the multi-phase motor.

25. (New) The electric motor of claim 9, wherein the plurality of stator section axially combine to form the total axial length of the stator.

26. (New) The electric motor of claim 9, wherein each of the plurality of stator sections has substantially the same axial length.

27. (New) The electric motor of claim 9, wherein each of the plurality of stator sections corresponds to a single phase of the motor.